

IN THE CLAIMS:

1-2. (Canceled)

3. (Previously Presented) A method within a server device for facilitating a remote boot process in a client device, wherein the client device and the server device reside on a network, the method comprising the steps of:

determining whether or not the server device is able to service an additional boot request;

receiving at the server device a boot request from the client device, wherein the server device is one of a plurality of boot servers on the network, and wherein the server device is able to respond to a boot request from any client device on the network;

responsive first to determining that the server device is able to service an additional boot request and second to receiving at the server device the boot request from the client device, sending a boot response to the client device, wherein the boot response directs the client device to download boot files from the server device; and

employing a self-throttling process to prevent the server device from servicing an additional remote boot process for an additional client device if the server device has insufficient resources for servicing an additional remote boot process.

4. (Previously Presented) The method of claim 3 further comprising:

executing a proxy DHCP (Dynamic Host Configuration Protocol) service on the server device for processing the boot request, wherein the boot request is formatted as a PXE-extended (Preboot Execution Environment extended) DHCP Request message, and wherein the boot response is a PXE-extended DHCP Ack message.

5. (Previously Presented) The method of claim 3 further comprising:

executing a boot service on the server device for processing a PXE-extended Boot Service Discover message.

6. (Previously Presented) A method within a server device for facilitating a PXE-compliant (Preboot Execution Environment compliant) remote boot process in a client device, wherein the client device and the server device reside on a network, the method comprising the steps of:

- determining whether the server device has sufficient resources to service a remote boot process for an additional client device;

- receiving at the server device a PXE-extended DHCP (Dynamic Host Configuration Protocol) Request message from the client device, wherein the server device is one of a plurality of boot servers on the network, and wherein the server device is able to respond to a PXE-extended DHCP Request message from any client device on the network;

- processing the received PXE-extended DHCP Request message within a Proxy DHCP service on the server device;

- responsive first to determining that the server device has sufficient resources to service a remote boot process for an additional client device and second to processing the received PXE-extended DHCP Request message, sending from the server device a PXE-extended DHCP Ack message to the client device, wherein the PXE-extended DHCP Ack message directs the client device to download boot files from the server device; and

- employing a self-throttling process to prevent the server device from servicing an additional remote boot process for an additional client device if the server device has insufficient resources for servicing an additional remote boot process.

7. (Previously Presented) The method of claim 6 further comprising:

- receiving at the server device a PXE-extended Boot Service Discover message from the client device;

- processing the received PXE-extended Boot Service Discover message within a boot service on the server device; and

- sending from the server device a PXE-extended Boot Service Ack message to the client device.

8. (Previously Presented) The method of claim 7 further comprising:
receiving at the server device an NBP (Network Bootstrap Program) Download Request message from the client device;
processing the received NBP Download Request message within a TFTP (Trivial File Transfer Protocol) service on the server device; and
downloading from the server device an NBP file to the client device.
- 9-10. (Canceled)
11. (Previously Presented) The method of claim 6 further comprising:
executing a boot service daemon for monitoring an availability of the server device to adequately service additional remote boot processes.
12. (Original) The method of claim 11 further comprising:
computing the availability of the server device to adequately service an additional remote boot process based upon resources within the server device.
13. (Original) The method of claim 11 further comprising:
computing the availability of the server device to adequately service an additional remote boot process based upon resources within at least two boot servers in the plurality of boot servers on the network.
14. (Previously Presented) The method of claim 6 further comprising:
communicating an indication of available resources within the server device to at least one other boot server in the plurality of boot servers on the network.
15. (Previously Presented) The method of claim 6 further comprising:
stopping or suspending the Proxy DHCP service on the server device if the server device has insufficient resources for servicing an additional remote boot process.

16. (Previously Presented) The method of claim 6 further comprising:
restarting the Proxy DHCP service on the server device if the server device has
sufficient resources for servicing an additional remote boot process.

17. (Previously Presented) The method of claim 6 further comprising:
communicating an execution status of the Proxy DHCP service on the server
device to at least one other boot server in the plurality of boot servers on the network.

18-51. (Canceled)

52. (Previously Presented) The method of claim 3, wherein the determining step is
performed in each of the plurality of boot servers on the network.

53. (Previously Presented) The method of claim 3, further comprising:
responsive to determining that the server device is not able to service an
additional boot request, suspending acceptance of additional boot requests from any
client device on the network.

54. (Previously Presented) The method of claim 6, wherein the determining step is
performed in each of the plurality of boot servers on the network.